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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/660,634 | 09/12/2003 | Markku A. Oksanen | 4208-4146 | 6966 |
| 27123 | 7590 | 03/24/2008 | EXAMINER | |
| MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101 | | | JAIN, RAJ K | |
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| | | | 2616 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/660,634 | Applicant(s) OKSANEN ET AL. | |
| | Examiner Raj K. Jain | Art Unit 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-22, 28 and 29 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1, 14 and 19 are objected to because of the following informalities: Claim 1 item c after the word second it does not make sense it states "Dear Tommy"???. Claim 14, delete in item b the term "significantly" as it does not limit the scope of the claim and replace with another appropriate term that correctly defines the claim as intended. Claim 19 in line 7 insert "wireless" after "the". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 8, 9, 14, 17, and 28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Regarding claim(s) 1, 14 and 28, the subject claims recite a second higher data rate communication link "higher data rate" in comparison to what other link, since the first link is claimed as low power link, the claim is ambiguous, clarification is required.

Regarding claims 8 and 9, claim 8 recites "heavy error coding", and claim 9 recites "simple error check", while the specification discloses "heavy error coding", however it is not clear to what is being defined as "heavy error coding". With respect to "simple error check" the specification explicitly fails to disclose "simple error check".

Art Unit: 2616

One skilled in the art would not be able to reasonable understand and make and/or use the invention based on the disclosure for “heavy error coding” and “simple error check”.

Appropriate correction is required.

Regarding claim 17, the claim recites time-consuming adjustment, it is not clear from the specifications what is meant by time-consuming adjustment. Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 15 recites the limitation "the second higher data rate" in appropriate lines. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 10-21, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miao (USP 7,046,716 B1) in view of Parry (US 2002/0164997 A1).

Regarding claims 1, 14 and 28, Miao discloses a method of ultra-fast downloading of data in a mobile environment (see abstract), comprising:

a) a) installing a first wireless low-power communication link between first and second terminals (see Fig. 1, 6, col 4 lines 52-67);

b) installing a second significantly faster wireless communication link between the terminals for data transfer (see abstract, Figs. 1, 6 col 4 lines 52-67); and

Miao fails to disclose controlling the second wireless communication link via the first wireless communication, wherein the first wireless communication link frees the second wireless communication link from link control overhead.

Parry discloses controlling the second wireless communication link via the first wireless communication, wherein the first wireless communication link frees the second wireless communication link from link control overhead (paras 8 and 29, computing device 12 (Fig. 1) retains selective control of any communications link between devices 16 and 14 as appropriate). A single link control system allows for an unified means for access to various wireless entities without necessary overhead for additional control access systems. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Parry within Miao thus enhancing network access system to a single control means.

Regarding claims 3, 10 and 19, Miao discloses a method and apparatus of duplex communication in a mobile environment (see abstract and Fig. 1), comprising:

establishing a base device including an integrated memory and a base UWB transmitter and receiver (see Fig. 1, 6 which establishes a base device 122);

initiating a low power communication connection between the mobile device and the base device (see Fig. 1, 6 low power communication between 114 UWB to 122, see col 3 lines 17-20.);

activating the mobile device UWB transmitter for transmitting data as modulated pulse trains to the base device receiver (see Fig.1, col 4 lines 53-67, the mobile device 114 transmits digital data pulses to the network 122, one skilled in the art appreciates that UWB is a wireless technology that broadcasts digital pulses that are timed very precisely across a very wide spectrum.);

f) demodulating the mobile device UWB transmitter pulse trains in the base device UWB receiver (Fig. 1, 10, 122 demodulates the pulse trains according to I/Q demodulation reference 1030.);

g) transmitting from the base device UWB transmitter to the mobile device UWB receiver, modulated pulse trains of the base device UWB transmitter interleaved between the modulated pulse trains of the mobile device UWB transmitter (see Figs. 1 and 2, col 5 lines 12-40, the block interleaver 214 is used to interleave modulated pulse trains of the base device and mobile device before being transmitted by the base device.); and

h) demodulating the modulated pulse trains of the base device UWB transmitter in the mobile device UWB receiver (see Figs 1 and 2, the multi-carrier 114 demodulates the incoming base device UWB signal, see col 4 lines 55-67.).

Miao fails to disclose removable memory modules and exchanging of UWB parameters between devices via the low power communication.

Parry discloses removable memory modules and exchanging of UWB parameters between devices via the low power communication (Paras 20 and 42).

A memory storage device and the capability to exchange UWB parameters allows for networking devices to negotiate appropriate operating parameter and therefore increasing the pulse frequency between the devices. A memory device allows for increased storage of parameters and other data as necessary outside of the networking components. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Parry within Miao so to improve and enhance UWB network performance by increasing the transmission and storage capabilities of devices as desired.

Regarding claims 2 and 29, Miao discloses second wireless communication link based on information communicated via the first wireless communication link (col 5 lines 1-20).

Regarding claim(s) 4, Parry discloses transmitting data from the base device to the removable memory module via the ultra wideband transmission link for storage in the integrated memories of the removable memory module (para 20 and 31) e) forwarding the transmitted data from the removable memory module to the mobile device memories through a connector and a bus interface (Fig. 1, interface is inherent within devices 12 and 14); and g) processing the transmitted data in the mobile device (paras 20 processing of data is inherent to the system), reasons for combining same as for claim 3.

Regarding claim 5 & 16, While Miao fails disclose the use of acknowledgement messages, however, examiner takes official notice that the use of acknowledgement messages and/or signaling is well known in the arts.

Regarding claim 11, Parry discloses Bluetooth connection (Fig. 1, para 29), reasons for combining same as for claim 10.

Regarding claims 12 & 13, Parry discloses a memory stick and exchanging of UWB parameters between devices via the low power communication (Paras 20 and 42), Reasons for combining same as for claim 10.

Regarding claim 15, Miao discloses a second radio link serves as a direct data channel for actual data payload (see Fig.1, abstract).

Regarding claim 17, Miao discloses a direct data channel eliminates time-consuming adjustments, such as, transceiver/receiver switching where possible loss of data occurs (see Figs 1, 6, abstract).

Regarding claim 18, Miao discloses means including a high capacity memory and a UWB transceiver attached to a terminal for capture of data at high speed and transfer to a utilization device at lower speeds (Fig. 2, discloses a dual mode transmitter which inherently incorporates a high capacity memory 240 and transference to appropriate devices via 224).

Regarding claim(s) 20, Miao discloses a UWB transmitter 114 (Fig. 1) for transmitting data over a UWB communication link (link from 112 to 122).

Regarding claim(s) 21, Miao discloses a mobile device 114 (Fig. 1) and network interconnect 122 inherently have display devices connected to appropriate control circuitry.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miao (USP 7,046,716 B1) in view of Parry (US 2002/0164997 A1), further in view of Woolgar et al (US 7135985 B2).

Miao and Parry fail to disclose Bluetooth, Irda, Hiperlan, Zigbee.

Woolgarv discloses Bluetooth, Irda, Hiperlan, Zigbee (see col 3 lines 1-20). UWB use in Bluetooth, Irda, Hiperlan, Zigbee, 802.11, WLAN allows for adapting to differences in various radio protocols to be utilized via the UWB technology and therefore it would have been obvious to incorporate the teachings of Woolgrav within Miao and Parry so as to broaden the spectrum of UWB use in different protocol groups.

Allowable Subject Matter

Claims 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-22, 28 and 29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJ K. JAIN whose telephone number is (571)272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raj K. Jain/

Primary Examiner, Art Unit 2616

March 27, 2008